## 5 SEQUENCE LISTINGS <110> Maxygen ApS <120> Factor VII or VIIa-like molecules 10 <130> 0212W0100 <140> <141> 15 <160> 11 <170> PatentIn Ver. 2.1 <210> 1 20 <211> 406 <212> PRT <213> Homo sapiens <220> <221> MOD\_RES <222> (6)..(35) <223> Xaa = gamma carboxyglutamic acid or glutamic acid 30H <400> 1 Ala Asn Ala Phe Leu Xaa Xaa Leu Arg Pro Gly Ser Leu Xaa Arg Xaa Ü Cys Lys Xaa Xaa Gln Cys Ser Phe Xaa Xaa Ala Arg Xaa Ile Phe Lys 5 3**5**🗖 N Asp Ala Xaa Arg Thr Lys Leu Phe Trp Ile Ser Tyr Ser Asp Gly Asp 14 ſŲ Gln Cys Ala Ser Ser Pro Cys Gln Asn Gly Gly Ser Cys Lys Asp Gln 50 55 Leu Gln Ser Tyr Ile Cys Phe Cys Leu Pro Ala Phe Glu Gly Arg Asn 45 Cys Glu Thr His Lys Asp Gln Leu Ile Cys Val Asn Glu Asn Gly 90 Gly Cys Glu Gln Tyr Cys Ser Asp His Thr Gly Thr Lys Arg Ser Cys 100 50 Arg Cys His Glu Gly Tyr Ser Leu Leu Ala Asp Gly Val Ser Cys Thr 120 . Pro Thr Val Glu Tyr Pro Cys Gly Lys Ile Pro Ile Leu Glu Lys Arg 55

Asn Ala Ser Lys Pro Gln Gly Arg Ile Val Gly Gly Lys Val Cys Pro

5	Lys	Gly	Glu	Cys	Pro 165	Trp	Gln	Val	Leu	Leu 170	Leu	Val	Asn	Gly	Ala 175	Gln
10	Leu	Суѕ	Gly	Gly 180	Thr	Leu	Ile	Asn	Thr 185	Ile	Trp	Val	Val	Ser 190	Ala	Ala
	His	Суѕ	Phe 195	Asp	Lys	Ile	Lys	Asn 200	Trp	Arg	Asn	Leu	Ile 205	Ala	Val	Leu
15	Gly	Glu 210	His	Asp	Leu	Ser	Glu 215	His	Asp	Gly	Asp	Glu 220	Gln	Ser	Arg	Arg
	Val 225	Ala	Gln	Val	Ile	Ile 230	Pro	Ser	Thr	Tyr	Val 235	Pro	Gly	Thr	Thr	Asn 240
20	His	Asp	Ile	Ala	Leu 245	Leu	Arg	Leu	His	Gln 250	Pro	Val	Val	Leu	Thr 255	Asp
	His	Val	Val	Pro 260	Leu	Cys	Leu	Pro	Glu 265	Arg	Thr	Phe	Ser	Glu 270	Arg	Thr
25 	Leu	Ala	Phe 275	Val	Arg	Phe	Ser	Leu 280	Val	Ser	Gly	Trp	Gly 285	Gln	Leu	Leu
3 <b>0</b>	Asp	Arg 290	Gly	Ala	Thr	Ala	Leu 295	Glu	Leu	Met	Val	Leu 300	Asn	Val	Pro	Arg
	Leu 305	Met	Thr	Gln	Asp	Cys 310	Leu	Gln	Gln	Ser	Arg 315	Lys	Val	Gly	Asp	Ser 320
35 11 14 40	Pro	Asn	Ile	Thr	Glu 325	Tyr	Met	Phe	Cys	Ala 330	Gly	Tyr	Ser	Asp	Gly 335	Ser
	Lys	Asp	Ser	Cys 340	Lys	Gly	Asp	Ser	Gly 345	Gly	Pro	His	Ala	Thr 350	His	Tyr
403	Arg	Gly	Thr 355	Trp	Tyr	Leu	Thr	Gly 360	Ile	Val	Ser	Trp	Gly 365	Gln	Gly	Cys
45	Ala	Thr 370	Val	Gly	His	Phe	Gly 375	Val	Tyr	Thr	Arg	Val 380	Ser	Gln	Tyr	Ile
	Glu 385	Trp	Leu	Gln	Lys	Leu 390	Met	Arg	Ser	Glu	Pro 395	Arg	Pro	Gly	Val	Leu 400
50	Leu	Arg	Ala	Pro	Phe 405	Pro										
55	<213 <213	0> 2 1> 13 2> Di 3> Ho		sapie	ens											
60	<22	1> CI	<220> <221> CDS <222> (115)(1335)													

5	<40	<400> 2															
		-	gcc a	aggc	cctc	cg c	ctcc	tgtgd	ct	gctc	ctgg	ggc	tgca	ggg (	ctgc	ctggct	60
10	gcc	gtct	tcg	tcac	ccag	ga g	gaag	ccat	gg(	cgtc	ctgc	atc	gccg	gcg (	ccgg	gcc Ala 1	117
15		_		_	_	_		cgc Arg									165
20								gag Glu 25									213
20						_		tgg Trp		_		-	-				261
25 	_	_		_		_	_	aac Asn									309
3 <b>5</b>								ctg Leu									357
(‡ ` 35								ctg Leu									405
								cac His 105									453
	_		_			_		ctg Leu	_	_				-	_		501
45		_				-		aag Lys					-	_			549
50	_	-			_			atc Ile	-			_	-	-		_	597
55								ctg Leu									645
60	_							acc Thr 185			-			_	_		693
00	tgc	ttc	gat	aag	att	aag	aat	tgg	cgg	aac	ctc	atc	gct	gtg	ctc	ggc	741

5	Cys	Phe 195	Asp	Lys	Ile	Lys	Asn 200	Trp	Arg	Asn	Leu	Ile 205	Ala	Val	Leu	Gly	
10	gaa Glu 210	cac His	gat Asp	ctg Leu	tcc Ser	gag Glu 215	cat His	gac Asp	ggg Gly	gac Asp	gaa Glu 220	cag Gln	tcc Ser	cgc Arg	cgg Arg	gtg Val 225	789
15														acc Thr			837
13														acc Thr 255			885
20														cgc Arg			933
25 📮														ctg Leu			981
10 m	cgg Arg 290	ggc Gly	gct Ala	acc Thr	gct Ala	ctc Leu 295	gag Glu	ctg Leu	atg Met	gtg Val	ctc Leu 300	aac Asn	gtc Val	ccc Pro	cgg Arg	ctg Leu 305	1029
15 15 35														gac Asp			1077
F () 4														ggc Gly 335			1125
40	gat Asp	agc Ser	tgc Cys 340	aag Lys	Gly	gac Asp	tcc Ser	ggc Gly 345	Gly ggg	ccc Pro	cat His	gcc Ala	acg Thr 350	cac His	tat Tyr	cgc Arg	1173
45	GJA aaa	acc Thr 355	tgg Trp	tac Tyr	ctc Leu	acc Thr	ggg Gly 360	atc Ile	gtc Val	agc Ser	tgg Trp	ggc Gly 365	cag Gln	ggc Gly	tgc Cys	gcc Ala	1221
50														tac Tyr			1269
55														gtg Val			1317
		-		ttc Phe 405		tga	taa										1338

<210> 3

```
<211> 406
     <212> PRT
     <213> Homo sapiens
     <400> 3
10
     Ala Asn Ala Phe Leu Glu Glu Leu Arg Pro Gly Ser Leu Glu Arg Glu
                                          10
     Cys Lys Glu Glu Gln Cys Ser Phe Glu Glu Ala Arg Glu Ile Phe Lys
                                      25
     Asp Ala Glu Arg Thr Lys Leu Phe Trp Ile Ser Tyr Ser Asp Gly Asp
15
                                  40
     Gln Cys Ala Ser Ser Pro Cys Gln Asn Gly Gly Ser Cys Lys Asp Gln
                              55
     Leu Gln Ser Tyr Ile Cys Phe Cys Leu Pro Ala Phe Glu Gly Arg Asn
                                              75
                          70
20
     Cys Glu Thr His Lys Asp Asp Gln Leu Ile Cys Val Asn Glu Asn Gly
                     8.5
                                          90
     Gly Cys Glu Gln Tyr Cys Ser Asp His Thr Gly Thr Lys Arg Ser Cys
                                    105
     Arg Cys His Glu Gly Tyr Ser Leu Leu Ala Asp Gly Val Ser Cys Thr
25
                                 120
                                                     125
     Pro Thr Val Glu Tyr Pro Cys Gly Lys Ile Pro Ile Leu Glu Lys Arg
135
                                                 140
Ę
     Asn Ala Ser Lys Pro Gln Gly Arg Ile Val Gly Gly Lys Val Cys Pro
                        150
                                             155
30
     Lys Gly Glu Cys Pro Trp Gln Val Leu Leu Val Asn Gly Ala Gln
                                         170
                    165
     Leu Cys Gly Gly Thr Leu Ile Asn Thr Ile Trp Val Val Ser Ala Ala
185
[C
     His Cys Phe Asp Lys Ile Lys Asn Trp Arg Asn Leu Ile Ala Val Leu
                                 200
     Gly Glu His Asp Leu Ser Glu His Asp Gly Asp Glu Gln Ser Arg Arg
                             215
                                                 220
fLI
    Val Ala Gln Val Ile Ile Pro Ser Thr Tyr Val Pro Gly Thr Thr Asn
14
                        230
                                             235
40.i
     His Asp Ile Ala Leu Leu Arg Leu His Gln Pro Val Val Leu Thr Asp
O
                    245
                                         250
     His Val Val Pro Leu Cys Leu Pro Glu Arg Thr Phe Ser Glu Arg Thr
                                    265
                                                         270
     Leu Ala Phe Val Arg Phe Ser Leu Val Ser Gly Trp Gly Gln Leu Leu
45
             275
                                 280
     Asp Arg Gly Ala Thr Ala Leu Glu Leu Met Val Leu Asn Val Pro Arg
                             295
     Leu Met Thr Gln Asp Cys Leu Gln Gln Ser Arg Lys Val Gly Asp Ser
                                             315
                        310
50
     Pro Asn Ile Thr Glu Tyr Met Phe Cys Ala Gly Tyr Ser Asp Gly Ser
                                         330
                    325
     Lys Asp Ser Cys Lys Gly Asp Ser Gly Gly Pro His Ala Thr His Tyr
                                     345
     Arg Gly Thr Trp Tyr Leu Thr Gly Ile Val Ser Trp Gly Gln Gly Cys
55
            355
                                 360
     Ala Thr Val Gly His Phe Gly Val Tyr Thr Arg Val Ser Gln Tyr Ile
                             375
                                                 380
     Glu Trp Leu Gln Lys Leu Met Arg Ser Glu Pro Arg Pro Gly Val Leu
                         390
60
     Leu Arg Ala Pro Phe Pro
                    405
```

```
5
     <210> 4
     <211> 1357
10
     <212> DNA
     <213> Artificial Sequence
     <223> Description of Artificial Sequence: Expression
15
          cassette for expression of FVII in mammalian cells
     <400> 4
     ggatcccgcc accatggtca gccaggccct ccgcctcctg tgcctgctcc tggggctgca 60
     gggctgcctg gctgccgtct tcgtcaccca ggaggaagcc catggcgtcc tgcatcgccg 120
20
     gcgccgggcc aatgcctttc tggaagagct ccgccctggc tccctggaac gcgaatgcaa 180
    agaggaacag tgcagctttg aggaagcccg ggagattttc aaagacgctg agcggaccaa 240
     actgttttgg attagctata gcgatggcga tcagtgcgcc tccagccctt gccagaacgg 300
     gggetectge aaagaccage tgeagageta tatetgette tgeetgeetg cetttgaggg 360
    gcgcaattgc gaaacccata aggatgacca gctgatttgc gtcaacgaaa acgggggctg 420
25
     cgagcagtac tgcagcgatc acacgggcac gaagcggagc tgccgctgcc acgaaggcta 480
     tagectectg getgaegggg tgteetgeac geceaeggtg gaataceett gegggaagat 540
tcccattcta gaaaagcgga acgctagcaa accccagggc cggatcgtcg gcgggaaggt 600
Ų
    ctgccctaag ggggagtgcc cctggcaggt cctgctcctg gtcaacgggg cccagctgtg 660
    cggcgggacc ctcatcaata ccatttgggt cgtgtccgcc gctcactgct tcgataagat 720
30<u>-</u>
    taagaattgg cggaacctca tcgctgtgct cggcgaacac gatctgtccg agcatgacgg 780
    ggacgaacag tcccgccggg tggctcaggt catcattccc tccacctatg tgcctggcac 840
ľU
    gaccaatcac gatategete tgeteegeet ceaecageee gtegtgetea eegateaegt 900
I
    cgtgcctctg tgcctgcctg agcggacctt tagcgaacgc acgctggctt tcgtccgctt 960
Ü
     tagcctcgtg tccggctggg gccagctgct cgaccggggc gctaccgctc tcgagctgat 1020
35<sup>-</sup>
    ggtgctcaac gtccccggc tgatgaccca ggactgcctg cagcagtccc gcaaagtggg 1080
    ggactccccc aatatcacgg agtatatgtt ttgcgctggc tatagcgatg gctccaagga 1140
 C
    tagctgcaag ggggactccg gcgggcccca tgccacgcac tatcgcggga cctggtacct 1200
    caccgggatc gtcagctggg gccagggctg cgccacggtg gggcactttg gcgtctacac 1260
 Ļ
    40...
    ggtgctcctg cgggcccctt tcccttgata aaagctt
 <210> 5
    <211> 31
45
     <212> DNA
    <213> Artificial Sequence
    <223> Description of Artificial Sequence: Primer
50
          CBProFpr174
                                                                     31
    agctggctag ccactgggca ggtaagtatc a
55
    <210> 6
    <211> 31
```

7

<212> DNA

<220>

60

<213> Artificial Sequence

79

```
5
     <223> Description of Artificial Sequence: Primer
           CBProFpr175
     <400> 6
                                                                         31
     tggcgggatc cttaagagct gtaattgaac t
10
     <210> 7
     <211> 30
     <212> DNA
15
     <213> Artificial Sequence
     <223> Description of Artificial Sequence: Primer
           CBProFpr216
20
     <4.0.0> 7
                                                                         30
     cttaaggatc ccgccaccat ggtcagccag
25
     <210> 8
     <211> 28
 O
     <212> DNA
     <213> Artificial Sequence
300 <220>
    <223> Description of Artificial Sequence: Primer
 I
           CBProFpr229
 Ç
     <400> 8
                                                                         28
     ggagtccccg gttttgttgg actgctgc
 ſŲ
    <210> 9
    <211> 21
40U <212> DNA
    <213> Artificial Sequence
 O
     <220>
     <223> Description of Artificial Sequence: Primer
45
           CBProFpr221
     <400> 9
     acttaagctt ttatcaaggg a
                                                                         21
50
     <210> 10
     <211> 28
     <212> DNA
     <213> Artificial Sequence
55
     <220>
     <223> Description of Artificial Sequence: Primer
           CBProFpr228
60
     <400> 10
                                                                         28
     gcagcagtcc aacaaaaccg gggactcc
```